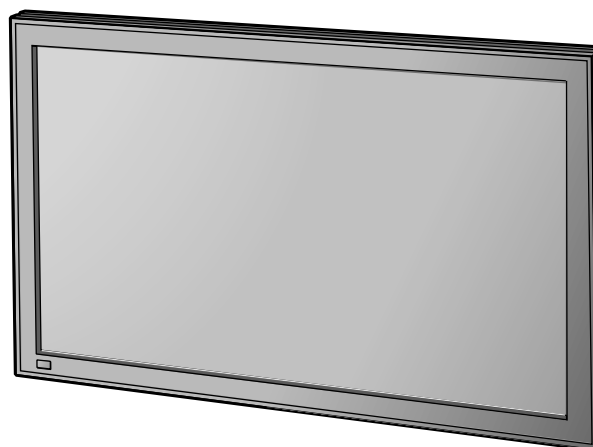


USER'S MANUAL

42"/50" WIDE PLASMA DISPLAY

P42VCA10/P42HCA10/P50XCA10/P42VCA20/
 P42VCA11/P42HCA11/P50XCA11/P42VCA21/
 P42VCA12/P42HCA12/P50XCA12/P42VCA22
 WITH OPTIONAL VIDEOBOARD (P-TE1020E)



Plasmavision™

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Before using the display, read this manual carefully so that you know how to use the display correctly. Refer to this manual whenever questions or problems about operation arise. Be sure to read and observe the safety precautions.

Keep this manual where the user can see it easily.

** Installation and removal require special expertise. Consult your product dealer for details.*

SAFETY PRECAUTIONS

IMPORTANT INFORMATION

IMPORTANT



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

WARNING: TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

FCC NOTICE

- P42VCA10/P42HCA10/P50XCA10/P42VCA20 with optional Videoboard (P-TE1020E): A class A digital device
- P42VCA11/P42HCA11/P50XCA11/P42VCA21 with optional Videoboard (P-TE1020E): A class A digital device
- P42VCA12/P42HCA12/P50XCA12/P42VCA22 with optional Videoboard (P-TE1020E): A class A digital device

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT SAFETY INSTRUCTIONS

Electrical energy can perform many useful functions. This unit has been engineered and manufactured to assure your personal safety. But **IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD.** In order not to defeat the safeguards incorporated into this product, observe the following basic rules for its installation, use and service. Please read these “Important Safeguards” carefully before use.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifier’s) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
 - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
 - Do not use immediately after moving from a low temperature to high temperature, as this causes condensation, which may result in fire, electric shock, or other hazards.
 - The apparatus shall not be exposed to dripping or splashing.
 - No objects filled with liquids, such as vases, shall be placed on the apparatus.
 - Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. The product should be mounted according to the manufacturer's instructions, and should use a mount recommended by the manufacturer.
 - When the product is used on a cart, care should be taken to avoid quick stops, excessive force, and uneven surfaces which may cause the product and cart to overturn, damaging equipment or causing possible injury to the operator.
 - Slots and openings in the cabinet are provided for ventilation. These ensure reliable operation of the product and protect it from overheating. These openings must not be blocked or covered. (The openings should never be blocked by placing the product on bed, sofa, rug, or other similar surface. It should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.)

For proper ventilation, separate the product from other equipment, which may prevent ventilation, and keep distance more than 10 cm.

- This product should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply of your home, consult your product dealer or local power company.
- This product is equipped with a three-wire plug. This plug will fit only into a grounded power outlet. If you are unable to insert the plug into the outlet, contact your electrician to install the proper outlet. Do not defeat the safety purpose of the grounded plug.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at doors, plugs, receptacles, and the point where they exit from the product.
- For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the product due to lightning and power line surges.
- Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in a risk of fire or electric shock.
- Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
- Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltages and other hazards. Refer all service to qualified service personnel.
- Unplug this product from the wall outlet and refer service to qualified service personnel if the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the Operation Manual, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or with same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
- The product should be placed more than one foot away from heat sources such as radiators, heat registers, stoves, and other products (including amplifiers) that produce heat.
- When connecting other products such as VCR's, and personal computers, you should turn off the power of this product for protection against electric shock.
- Do not place combustibles behind the cooling fan. For example, cloth, paper, matches, aerosol cans or gas lighters that present special hazards when overheated.
- Use only the accessory cord designed for this product to prevent shock.

The power supply voltage rating of this product is AC110–240 V (42"10/11/12 W/E/A) and AC220–240 V (42"20/21/22 W/E/A, 50"W/E/A type) and AC 120 V (U type), and the power cord attached conforms to the following power supply voltage. Use only the power cord designated by our dealer to ensure Safety and EMC.

When it is used with other power supply voltage, the power cable must be changed.

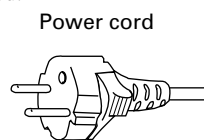
Use the standard power plug and cord set of the specified country.

Consult your product dealer.

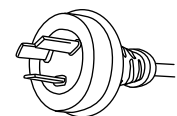
Power supply voltage:



AC 100–125 V
(42"10/11/12W, 42"U,
50"U Type: Included)



AC 200–240 V
(42"20/21/22W, 42"E, 50"W,
50"E Type: Included)



AC 240 V (SAA TYPE)
(42"A, 50"A Type: Included)

FEATURES

This display uses a plasma display panel and is only 8.5 cm (42") /9.8 cm (50") deep. With its high picture quality and performance, it is perfectly suited for multimedia applications.

Variety of input signals

- RGB input is compatible with mD-sub terminals and BNC terminals.
- The display has an RGB input terminal to receive signals, including VGA, SVGA, XGA, SXGA and UXGA.

5 screen sizes (Video input mode) and 3 screen sizes (RGB input mode)

- This display offers a total of five different screen sizes in video input mode: Wide1, Wide2, Zoom1, and Zoom2.
A Normal mode is also available for displaying of normal-size (4:3 aspect ratio) pictures.
- Three different screen sizes in RGB input mode (Normal, Wide, and Zoom) are also available.

Vertical installation

- The display can be installed vertically, enabling advertisement to be displayed. In this case, you can set up the display so that on-screen information, such as input modes and menus, is displayed properly.

Power management function

- The display features a DPMS (Display Power Management Signaling) function that ensures automatic power saving capability.

Flexible as part of a system

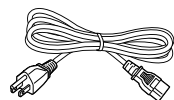
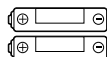
- You can operate the display by remote control using the RS-232C interface.
- If you have two or more displays, you can assign a unique number to each of them so that you can select which one you want to use.
- Input Priority function for selecting automatic switching to desired mode is provided to avoid troublesome operation.

Others

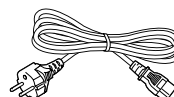
- The white screen and screen orbiter functions are available to minimize phosphor burn-in.

CHECKING ACCESSORIES

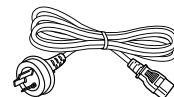
One remote control Two AA batteries One user's manual One power cable Two big ferrite cores Two small ferrite cores



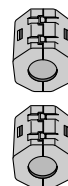
(42" 10/11/12W,
42" U, 50" U Type)



(42" 20/21/22W, 42" E,
50" W, 50" E Type)



(42" A, 50" A Type)



(P42VCA11/
P42HCA11/
P50XCA11/
P42VCA21 only)

HANDY TIPS

- Viewing the screen constantly for extended periods can strain your eyes. Be sure to stay at a proper distance (at least 1.5 m or 5 feet (42'')/ 1.9 m or 6.3 feet (50'')) from the screen and to look occasionally away while working.
- Have the display inspected and cleaned by your dealer at regular intervals.
- Pictures may become "burnt" into the screen phosphors if the screen is left on for extended periods. To ensure that the display has a prolonged service life, be sure to use a screen orbiter, white screen. This will ensure the same picture or pattern is not constantly displayed for long periods. (See P. E-31-E-32.)
- The plasma display panel, which is built for maximum precision, provides more than 99.99% effective pixels. You may find, however, that some pixels constantly remain lit or dimmed.
- The display has a fan to prevent its internal temperature from rising.
- Be careful with the air delivered by the fan. It may be very hot.
- Contact your dealer if you find that the display does not seem to function properly when used with other audio-visual equipment.
You may need to move your display if it produces degraded pictures or noise due to electromagnetic radiation, or if the infrared remote control does not function properly.
- Pictures may not be displayed properly if you connect a non-standard PC to the RGB input terminal. In this case, contact your dealer for more information.
- The protective circuit, built into the display, automatically turns off the power if the display has a problem. In this case, you will see that the power indicator lamp flashes red.

Warning

If the power indicator lamp flashes red, this signifies that the display has developed a problem. When this happens, be sure to remove the power plug from the receptacle to prevent fire or electric shock. Then, check the display in accordance with the instructions given on P. E-42, or contact your dealer.

Information

Cables for connecting the display to external equipment are not supplied. Contact your dealer for more information on these products.

INSTALLATION

To prevent the display's internal components from overheating, make sure that the display is installed in a well-ventilated location.

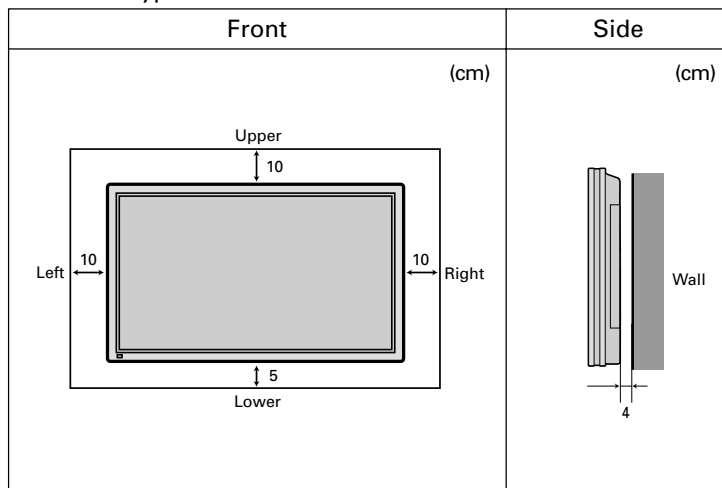
Be sure to use the optional desktop stand, ceiling-mounting unit, wall-mounting unit and other unit when installing this display. Also, be sure that your dealer performs the installation.

See the appropriate instruction manual for more information on the installation hardware you select.

To ensure proper heat radiation, provide at least as much space around the display as shown below.

- * Make sure that the display is installed in a location where the temperature can be maintained between 0°C and 40°C.
- * Never attempt to tilt the display sideways or backward.
- * To prevent the power and other cables from being accidentally pulled, be sure to make the wiring work along the wall or through the corners of floor.
- * To prevent an accident and ensure safety in the event of an earthquake, fix the display securely into position as described below.

Horizontal type



Note

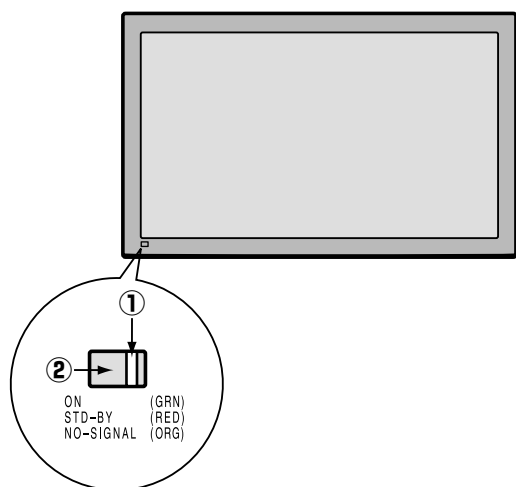
The display is a highly precise piece of equipment and therefore must be packed properly before transportation. Be sure to use only those packing materials originally supplied with the display when repacking it.

Reference

See P.E-35 for more information on options.

PART NAMES AND FUNCTIONS

Front (both 42" and 50")



① Power indicator lamp

This lamp shows the state of the power supply.

Lit (red): Power OFF (stand-by)

Lit (green): Power ON

Lit (orange): Power saving (DPMS: Power saving function) mode ON

Flashing (red): Malfunction (Flashes differently depending on the type of malfunction. See P. E-42 for more information.)

② Remote control signal receiver

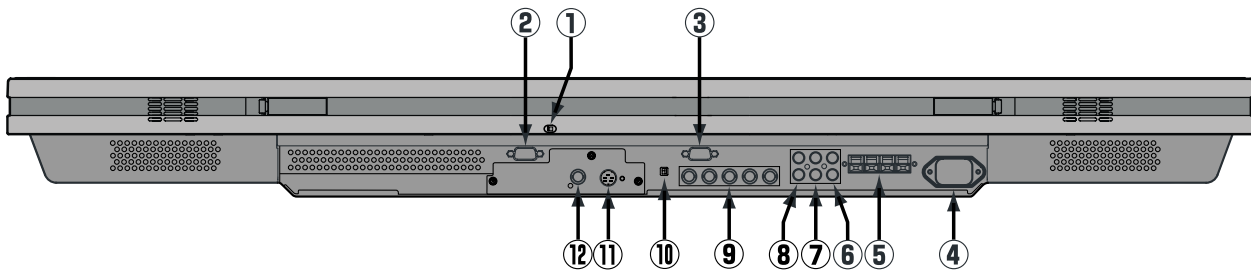
Receives signals from the remote control.

Warning

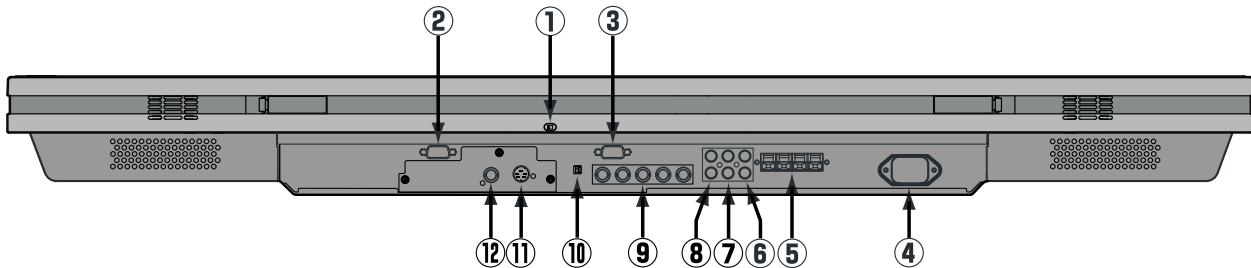
If the power indicator lamp flashes red, this signifies that the display has developed a problem. When this happens, be sure to remove the power plug from the receptacle and contact your dealer. Leaving the display power ON can result in fire or electric shock.

PART NAMES AND FUNCTIONS (Continued)

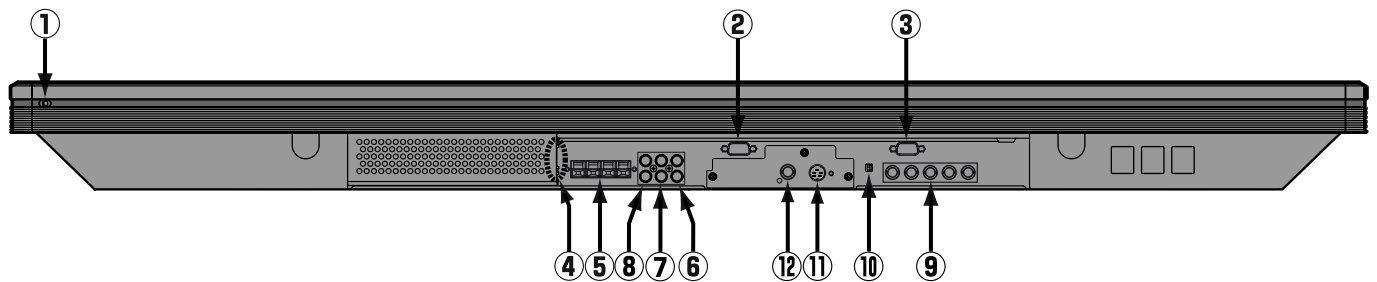
Bottom (42" VCA 10/11/12 type)



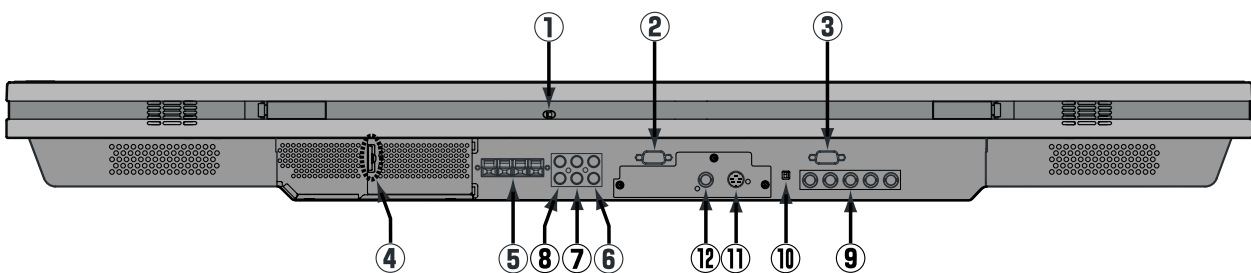
Bottom (42" HCA type)




Bottom (50")





Bottom (42" VCA 20/21/22 type)



① **OFF/STD-BY**  **switch**

 OFF :The power indicator lamp goes off, and the power can't be turned on by the power button. The power is partly supplied.

 STD-BY  :The power indicator lamp lights red, and the power can be turned on or off by the power button.

② **RS-232C terminal (RS-232C)**

This terminal is provided for you to control the display from the PC. Connect it to the RS-232C terminal on the PC.

When connecting a cable, attach a ferrite core to the cable. (See P. E-13.)

③ **RGB1 input terminal (RGB1 INPUT/mD-sub)**

Connect this terminal to the PC's display (analog RGB) output terminal or decoder (digital broadcast tuner, etc.) output terminal.

④ **Power input terminal**

Connect this terminal to the power cable supplied with the display.

When connecting a cable, attach a ferrite core to the cable. (See P. E-13)

⑤ **External speaker output terminal (EXT SP)**

Connect this terminal to the optionally available speaker.

(When using other speaker than the optional one, use 4–16 Ω speaker.)

When connecting a cable, attach a ferrite core to the cable. (See P. E-13)

* See the speaker instruction manual for more information.

* P42VCA11/P42HCA11/P50XCA11/P42VCA21 only.

⑥ **Sound 1 input terminal (AUDIO1 INPUT)**

⑦ **Sound 2 input terminal (AUDIO2 INPUT)**

⑧ **Sound 3 input terminal (AUDIO3 INPUT)**

Connect this terminal to the sound output terminal of your VCR, etc. (See P.E-30 for the selection of audio input for video input.)


* This terminal is not available for P42VCA10/P42HCA10/P50XCA10/P42VCA20.


⑨ **RGB2 input terminal (RGB2 INPUT/BNC)**

Connect this terminal to the PC's display (analog RGB) output terminal.

⑩ **RGB2 synchronization switch (SYNC SW TTL/ANALOG (75 Ω))**

This switch is used to terminate horizontal (H) terminal and vertical (V) terminal, out of RGB2 input terminals, with 75 Ω .

 TTL : Does not terminate.

 ANALOG (75 Ω): Terminates.

⑪ **S-Video input terminal (S-VIDEO INPUT)**

Connect this terminal to the S-video output terminal of your VCR.

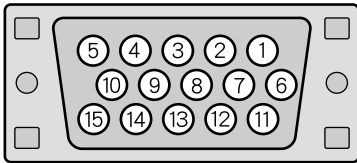
⑫ **Video input terminal (VIDEO INPUT)**

Connect this terminal to the video output terminal of your VCR.

PART NAMES AND FUNCTIONS (Continued)

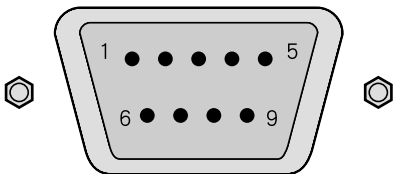
Description of Input Terminals

RGB1 terminal (RGB1 INPUT/mD-sub)



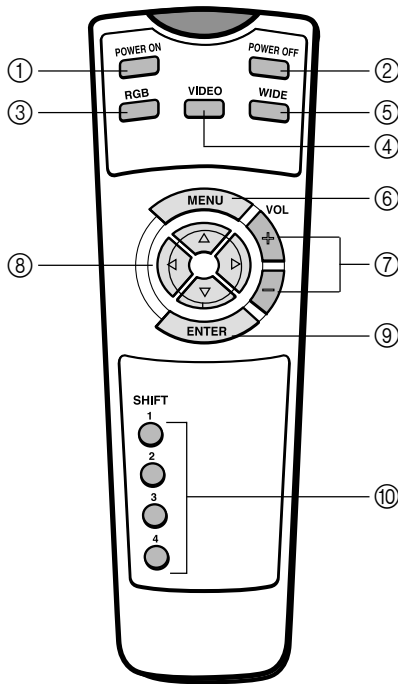
Pin No.	Input signal	Pin No.	Input signal
1	Red	9	—
2	Green	10	Ground
3	Blue	11	—
4	—	12	—
5	Ground	13	Horizontal synchronization
6	Ground	14	Vertical synchronization
7	Ground	15	—
8	Ground	Frame	Ground

RS-232C terminal (RS-232C)



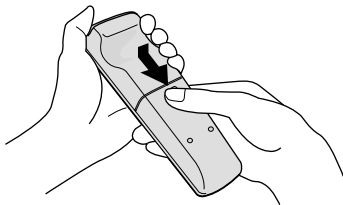
Pin No.	Signal
1	DCD (Data Carrier Detect)
2	RD (Received Data)
3	TD (Transmit Data)
4	DTR (Data Terminal ready)
5	GND (Ground)
6	DSR (Data Set Ready)
7	RTS (Request To send)
8	CTS (Clear To Send)
9	RI (Ring Indication)

Remote Control

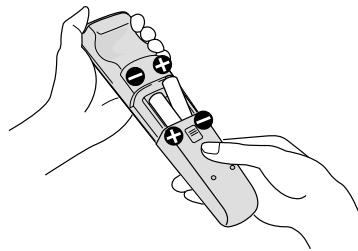


- ① **Power ON button [POWER ON]** → (See P. E-16.)
- ② **Power OFF button [POWER OFF]** → (See P. E-16.)
- ③ **RGB input mode selector button [RGB]** → (See P. E-17.)
- ④ **Video input mode selector button [VIDEO]** → (See P. E-17.)
- ⑤ **Wide screen selector button [WIDE]** → (See P. E-18–E-19.)
- ⑥ **Menu button [MENU]** → (See P. E-20–E-34.)
Use this button to display a desired menu for adjusting the picture.
- ⑦ **Volume adjustment buttons [VOL +/-]** → (See P. E-16.)
Adjust the volume. Press the + button to increase the volume.
Press the - button to reduce the volume.
* Not used with P42VCA10/P42HCA10/P50XCA10/P42VCA20.
- ⑧ **Adjustment buttons [◀ / ▶ / ▲ / ▼]** → (See P. E-20–E-34.)
Use these buttons to scroll through options in a menu and change values.
- ⑨ **Enter button [ENTER]** → (See P. E-20–E-34.)
Press this button to finalize the selection of a desired menu or option within a menu.
- ⑩ **Display selector buttons [SHIFT 1–4]** → (See P. E-32.)
When you use two or more displays, you can use these buttons to control up to four displays by assigning a unique number to each display.

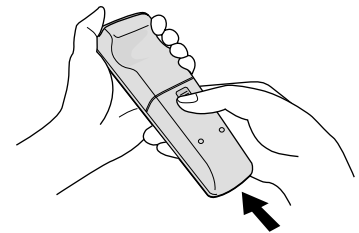
PUTTING BATTERIES IN THE REMOTE CONTROL



- ① To remove the cover, slide it outwards while pressing it down.



- ② Place two AA batteries in the remote control. Make sure that the batteries are properly oriented.



- ③ Close the cover until it snaps into place.

CAUTION: Be sure to use replacement batteries of the same type as the original ones.
When disposing of used batteries, please comply with governmental regulations or environmental public institution's rules that apply in your country/area.

Note

The remote control will not function properly if the batteries are dead. Be sure to replace them as needed.
Do not use rechargeable batteries (Ni-Cd).

USING THE REMOTE CONTROL

PRECAUTIONS

To prevent malfunction, be sure not to apply any form of severe shock to the remote control.

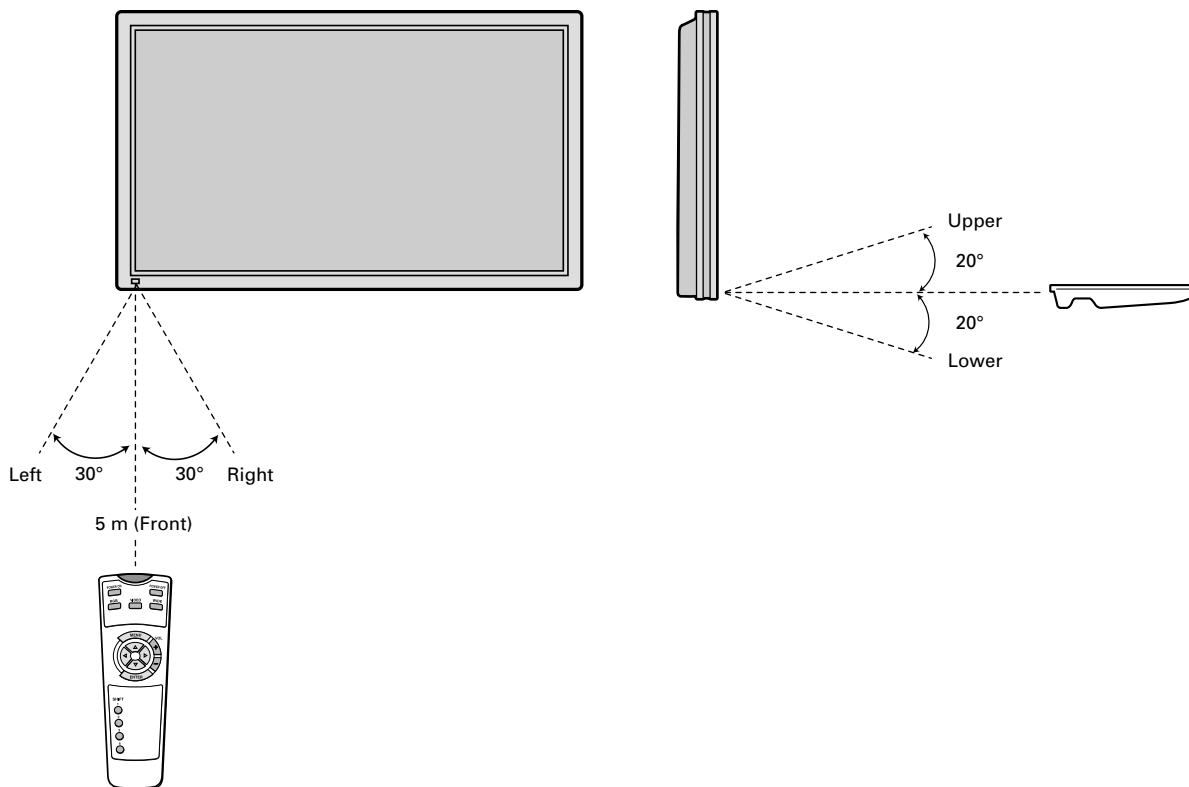
To prevent malfunction or deformation, be sure not to allow the remote control to become wet; also, keep it away from hot locations or heating equipment.

Be sure not to clean the remote control using a cloth dampened in any volatile solvent, such as benzene or thinner.

EFFECTIVE RANGE FOR THE REMOTE CONTROL

Point the remote control at the display's signal receiver when using it.

Make sure that there are no obstacles between the remote control and the display's signal receiver.



Information

The remote control may not function properly if you use a high-frequency fluorescent lamp. If you experience problems, move the lamp or use the remote control from a different position.

CONNECTING THE DISPLAY TO EXTERNAL EQUIPMENT

Be sure to turn OFF the power to the display and external equipment before making any connections.

No cables are supplied with the display for connection to external equipment. The type of cable to be used varies depending on the PC model. Contact your dealer for more information.

RECEPTACLE

Make sure that the power cable's grounding wire is grounded.

The display comes with a 3-prong power plug; one prong is connected to the grounding wire. If you have only a 2-hole receptacle, you will need to have it replaced. Contact your dealer for more information.

CONNECTING THE DISPLAY TO EXTERNAL EQUIPMENT

Carefully check the terminals for position and type before making any connections.

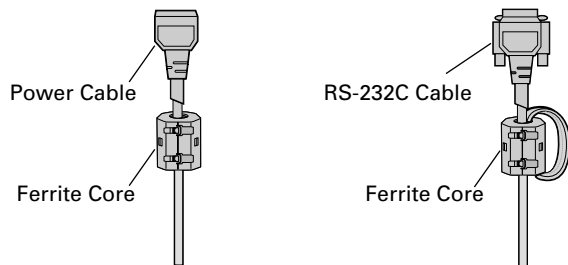
Loose connectors can result in picture or color problems. Make sure that all connectors are securely inserted into their terminals.

Ferrite cores

These ferrite cores are used to attenuate undesired signals.

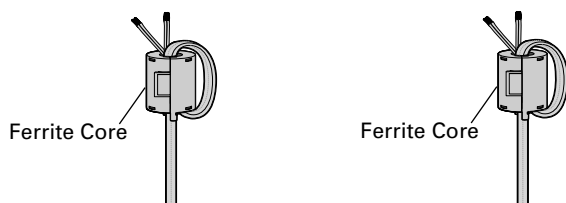
Two big ferrite cores

When connecting a cable to the power input terminal, RS-232C terminal, attach one of these ferrite cores to the cable near the terminal.



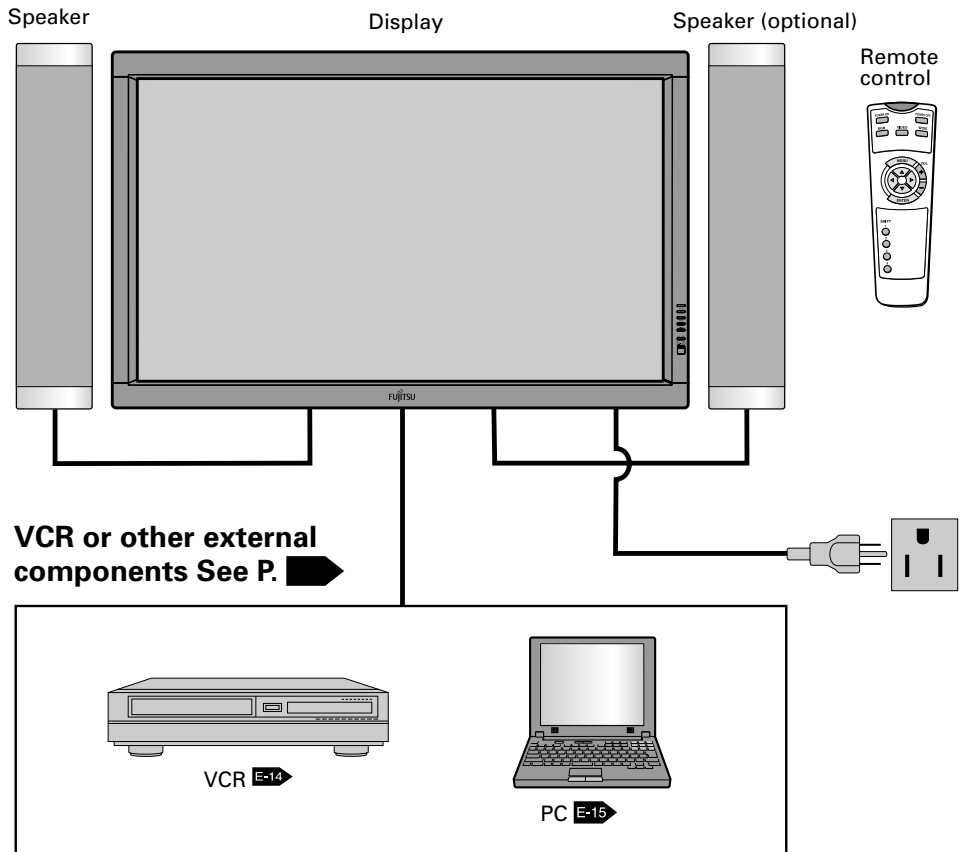
Two small ferrite cores

When connecting a cable to the external speaker output terminal attach one of these ferrite cores to the cable near the terminal.
(P42VCA11/P42HCA11/P50XCA11/P42VCA21 only.)



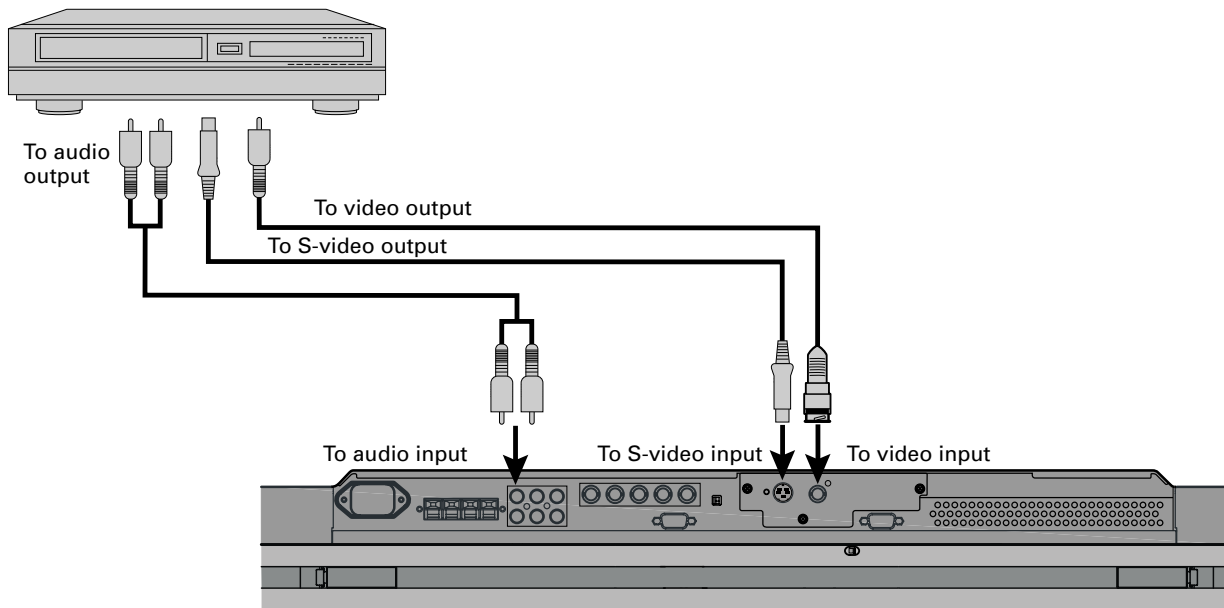
CONNECTING THE DISPLAY TO EXTERNAL EQUIPMENT (Continued)

EXAMPLE OF CONNECTION TO EXTERNAL COMPONENTS



VCR

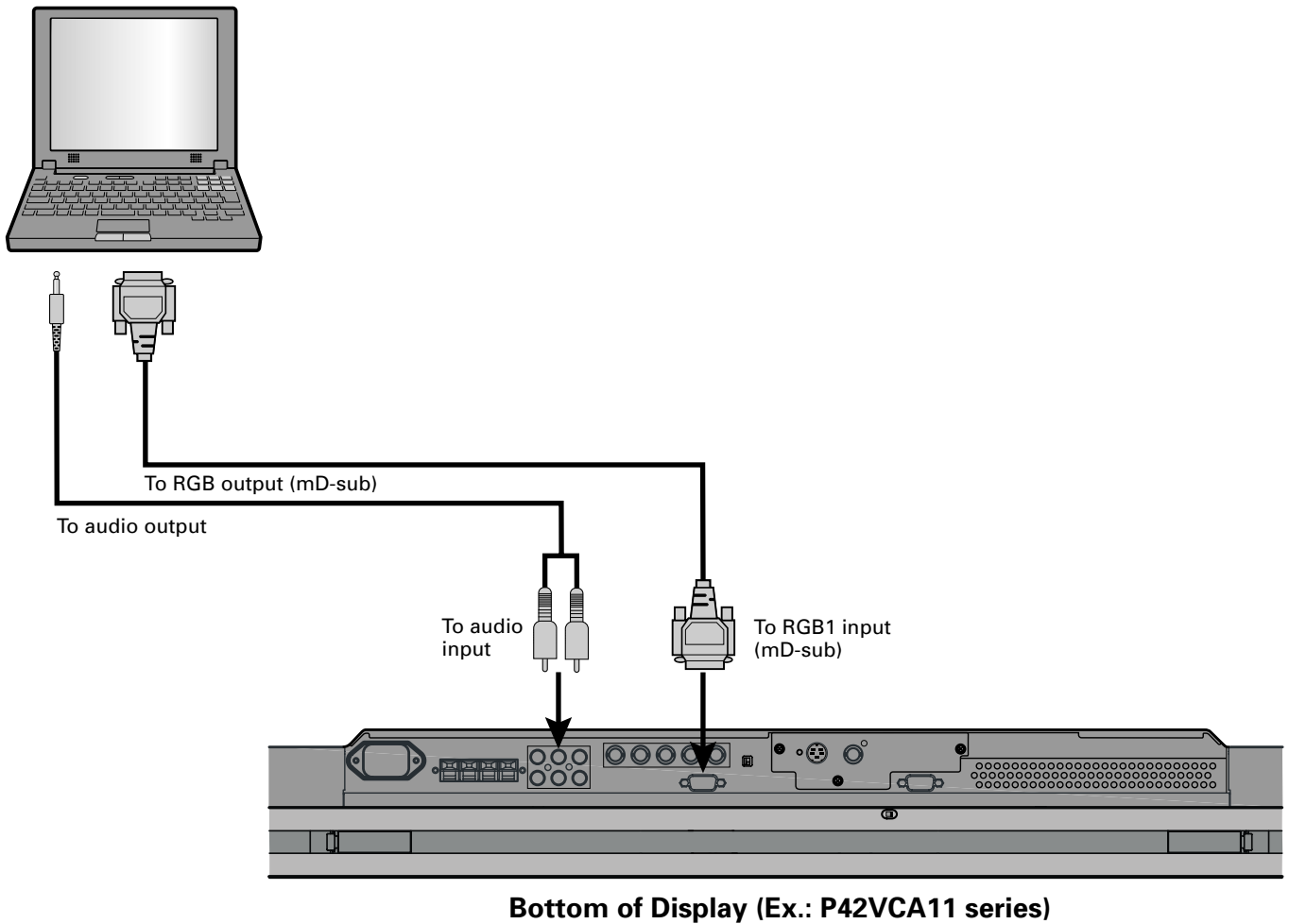
- Connect the video signal cable to either the S-video input terminal or the video input terminal.



Bottom of Display (Ex.: P42VCA11 series)

PC

- As the cable for connecting a PC differs with the PC model, please consult your dealer for information on the right cable to purchase.

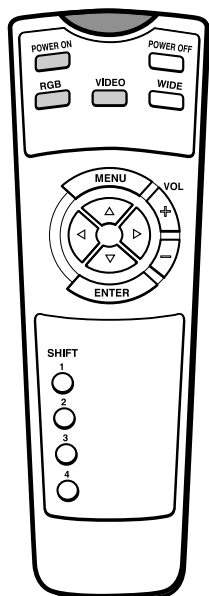




Note

- Unplug the power cord from the AC outlet before you connect external components.
- Also refer to the instructions for the component to be connected.
- * When inputting voice see "Selecting input terminals (page E-30)"
- * The sound terminal is not available for P42VCA10/P42HCA10/P50XCA10/P42VCA20.


BASIC OPERATIONS

TURNING ON THE POWER





- 1** Set the OFF/STD-BY  switch at the bottom of the display to STD-BY .

The power indicator lamp turns on.

- 2** Press  on the remote control.

When you do so, the power indicator lamp turns green.


- 3** Press  or  to select a desired input mode.


TURNING OFF THE POWER

Press  when the power is ON.



The power indicator lamp turns red.

ADJUSTING THE VOLUME

Press  to increase the volume.

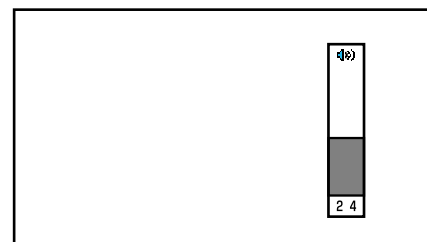
Press  to reduce the volume.

Any value between 0 and 40 can be selected.

* “No Audio” appears if you press  or  after you have selected “No Audio” for “Audio Input”. (See P. E-30.)

* Note that the volume level remains stored even when you turn OFF the power.

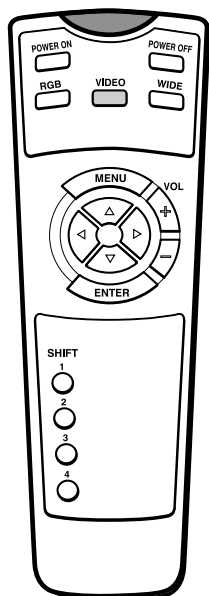
* Not used with P42VCA10/P42HCA10/P50XCA10/P42VCA20.




When the volume adjustment button is pressed

SELECTING INPUT MODE

VIDEO INPUT MODE



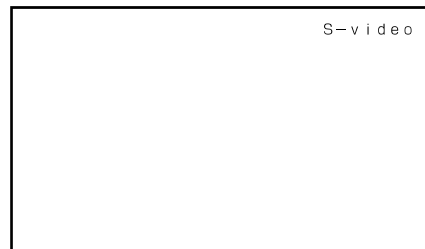
1 Press  to select a desired input mode.

Each time you press , a different input mode appears. The sequence is as follows:

Video ↔ S-video

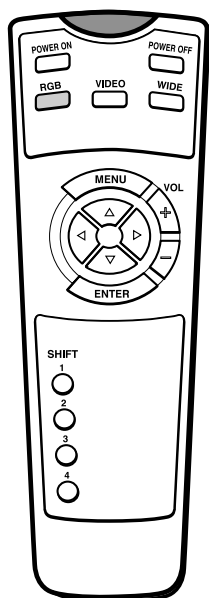
Video: Displays pictures from equipment connected to the Video terminal.


S-video: Displays pictures from equipment connected to the S-video terminal.




S-video mode

RGB INPUT MODE



1 Press  to select a desired input mode.

Each time you press , a different input mode appears. The sequence is as follows:

RGB1 ↔ RGB2

RGB1: Displays pictures from equipment connected to the RGB1 (mD-sub) terminal.

RGB2: Displays pictures from equipment connected to the RGB2 (BNC x 5) terminal.



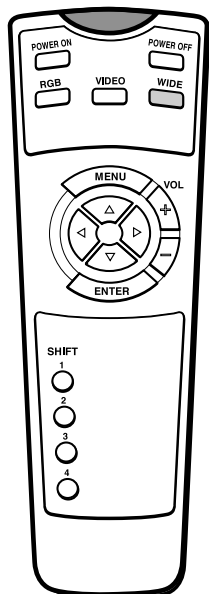
RGB1 mode



RGB2 mode

WATCHING PICTURES ON THE WIDE SCREEN


SWITCHING BETWEEN SCREEN SIZES



1 Press .

The currently selected mode will appear.

2 Press  to select a desired picture mode.

Each time you press , a different picture mode appears. The sequences used are as follows:

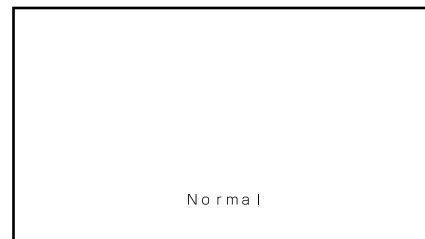
When you are in a Video or S-video input mode

→Normal→Wide1→Wide2
←Zoom2 ← Zoom1←

When you are in an RGB input mode

→Normal→Wide →Zoom

* Depending on the type of signal, some aspects may not be selected.



Normal mode



Wide1 mode

Note

- Displaying a picture in a Normal mode for extended periods of time may cause phosphor burn-in.
- A variety of picture modes are available with this display. Remember that if you select a mode with an aspect ratio (ratio of frame width to frame height) different from that of the TV program or video media, the pictures will appear differently than if you had selected a mode having the same aspect ratio.
- Showing a movie or similar premium event at a different aspect ratio from its original one at any event site, restaurant, or bar for profit-making purposes or for a public audience may constitute a copyright infringement.
For films, try to select a mode having the same aspect ratio as the original picture; this enables the director's original intentions to be preserved.

Reference

See P. E-22–E-23 for how to adjust the picture size and position.

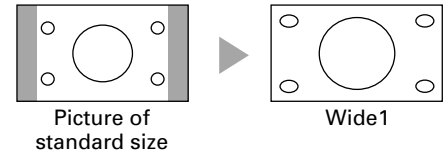
SCREEN SIZE

Normal

Displays pictures of normal size (i.e., a 4:3 aspect ratio).

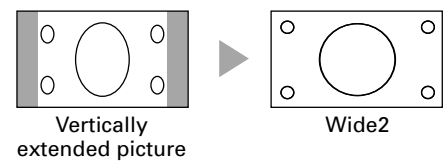
Wide1

Displays natural-looking pictures of standard size on the wide screen.



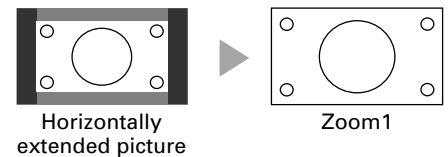
Wide2/Wide

Ideal for displaying vertically extended pictures such as squeezed pictures and recorded HDTV programs.



Zoom1/Zoom

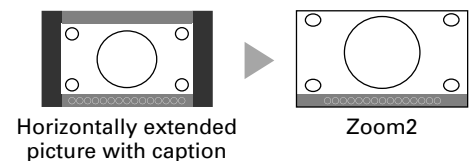
Enlarges horizontally extended pictures equally in all directions to maintain the aspect ratio constant.



Zoom2

Reduces the height of horizontally extended pictures with captions, without eliminating the caption. Only the height of pictures is reduced, not the height of the caption.

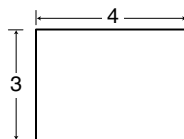
(Captions may not be easy to read, however, depending on the picture.)



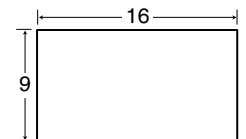
ASPECT RATIO

The following aspect ratios are available.

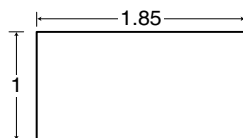
4:3 aspect ratio
(VHF/UHF broadcasting, BS broadcasting)



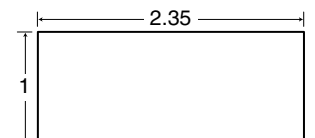
16:9 aspect ratio
(HDTV broadcasting)



1.85:1 aspect ratio
(Vista Vision size)



2.35:1 aspect ratio
(Cinema Vision size)



Information

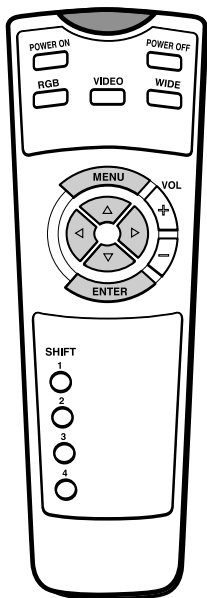
You may find dark areas on top and at the bottom of the screen if you select one of the Zoom modes for media while using the Vista Vision or Cinema Vision size i.e., the sizes used frequently for picture software.

ADJUSTING PICTURES (PICTURE MENU)

BASIC OPERATIONS [EX.: ADJUSTING TINT (Tint)]

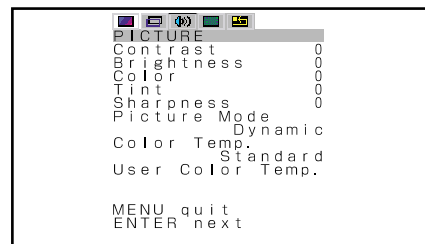
You can make changes to all picture adjustment options in the PICTURE Menu.

The changes you make will be stored for a selected input mode. Therefore, you need to select a desired input mode before making any changes.



1 Press **MENU**.

The main menu screen will appear.



"PICTURE" selected in the main menu screen

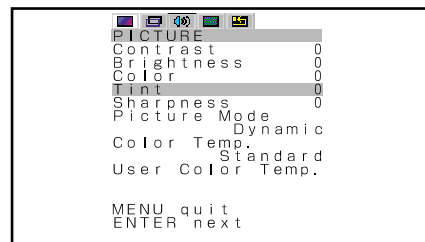
2 Press **Left Arrow** or **Right Arrow** to select "PICTURE".

Each time you press **Left Arrow** or **Right Arrow**, one of the available menus appears in the following sequence:

PICTURE ↔ POSITION/SIZE ↔ AUDIO ↔ FEATURES ↔ FACTORY DEFAULT

The PICTURE Menu screen will appear.

3 Press **Up Arrow** or **Down Arrow** to select "Tint".



"Tint" selected in the PICTURE Menu screen (Video Input Mode)

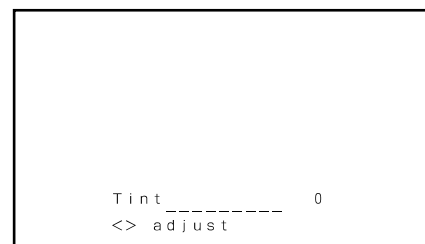
4 Press **ENTER**.

The "Tint" adjustment screen will appear.

5 Press **Left Arrow** or **Right Arrow** to change tint values.

Left Arrow: More greenish tint

Right Arrow: More purplish tint



"Tint" adjustment screen

6 Press **ENTER** to store.

Press **MENU** when you finish.

* Repeat steps 3, 4, 5, and 6 when you wish to make changes to other options.



• **Contrast, brightness, color darkness, tint, and picture sharpness are adjusted as shown in the following chart.**

Select the item with , and then adjust with . Finally, press to implement the adjustments.

Adjustment Item			Adjustment Range/Remarks
Contrast	Lower contrast	Higher contrast	-30 to +30
Brightness	Darker screen	Brighter screen	-60 to +60
Color	Lighter colors	Darker colors	-60 to +60
Tint	More purplish colors	More greenish colors	-60 to +60 (RGB) -30 to +30 (Video, S-video)
Sharpness	Softer pictures	Sharper pictures	-4 to +4 (RGB) -16 to +16 (other than RGB)

• **Setting Picture Mode (Picture Mode)**

Can set up the picture mode.

Each time you press or , one of the available choices appears in the following sequence:

→ Dynamic ↔ Real ↔ Static ←

Dynamic: Suitable for watching a normal motion picture.(Standard)

Real: Makes a strong contrast picture.

Static: Suitable for watching a still picture.

Press to store.

* Select Dynamic, Real or Static to suit your taste.

• **Setting Luminance (Luminance)**

Luminance can be set.

Use or to select a value between 40 and 100.

Press to store.

* Settings can only be done when the Picture Mode is Static.

• **Adjusting Color Temperature (Color Temp.)**

Use or to specify a desired color temperature. Each time you press or , one of the available choices appears in the following sequence:

→ -3500 ↔ ... ↔ Standard ↔ ... ↔ +3500 ↔ User ←

-3500: More reddish colors

Standard: Standard color temperature

+3500: More bluish colors

User: User Color Temp. setup

Press to store.

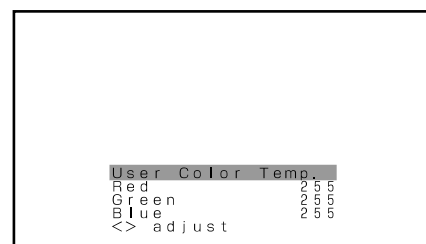
• **Setting User Color Temp. (User Color Temp.)**

Can set up when User is selected in Color Temp.

Press or to select Red, Green or Blue and press or to make adjustment in the range of 0 to 255.

Press to store.

* Color Temp. setup is switched to User. The initial value of User Color Temp. is adjusted individually at the factory.



User Color Temp.adjustment screen

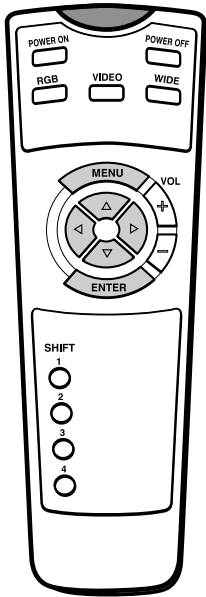
* On-screen information disappears if you do not take any action for about 60 seconds.

ADJUSTING SCREEN POSITION AND SIZE (POSITION/SIZE MENU)

BASIC OPERATION [EX.: ADJUSTING HORIZONTAL DIRECTION OF SCREEN]

You can make changes to all screen adjustment options in the POSITION/SIZE Menu.

The changes you make will be stored for the selected input mode. Therefore, you need to select a desired input mode before making any changes.





1 Press .

The main menu screen will appear.



2 Press  or  to select "POSITION/SIZE".

Each time you press  or , one of the available menus appears in the following sequence:

PICTURE \leftrightarrow POSITION/SIZE \leftrightarrow AUDIO \leftrightarrow FEATURES \leftrightarrow FACTORY DEFAULT



The POSITION/SIZE Menu screen will appear.

"POSITION/SIZE" selected from the main menu screen


3 Press  or  to select "Position".


4 Press .

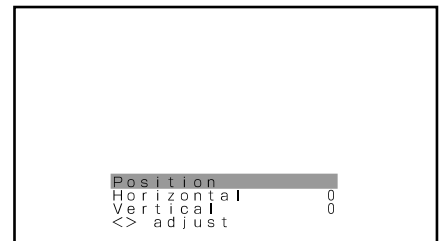
The "Position" adjustment screen will appear.

5 Press  or  to select "Horizontal" values of screen position.

6 Press  or  to change horizontal values.

: Moves screen to the right.

: Moves screen to the left.



"Position" adjustment screen

7 Press  to store.

Press  when you finish.

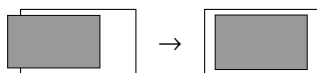
* Repeat steps 3 to 7 when you wish to make changes to other options.



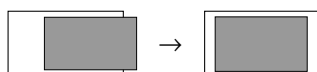
Adjusting Screen Position (Position)

Horizontal position (Horizontal)

➤: Moves screen to the right.

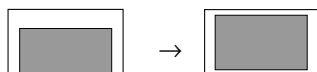


➤: Moves screen to the left.

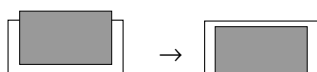


Vertical position (Vertical)

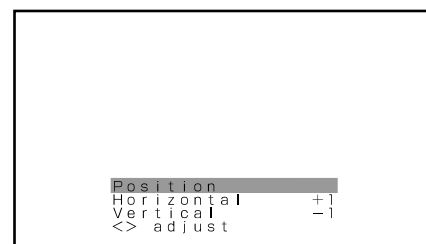
➤: Moves screen up.



➤: Moves screen down.



Press  to store.

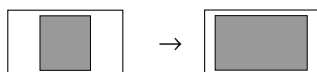


"Position" adjustment screen

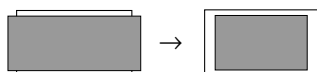
Adjusting Screen Size (Size)

Screen width (Width)

➤: Increases width.

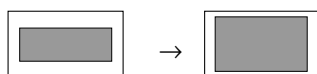


➤: Reduces width.

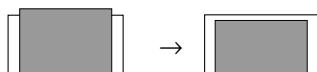


Screen height (Height)

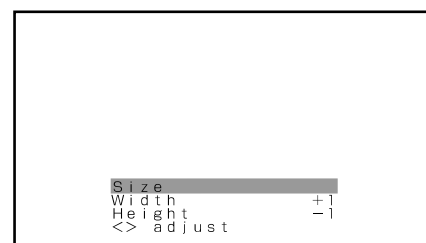
➤: Increases height.



➤: Reduces height.



Press  to store.



"Size" adjustment screen

Setting Range

	Video, S-video mode	RGB mode
Position	Horizontal: -30 to +30 Vertical Zoom: -15 to +15 Others: -7 to +7	-150 to +150
Size	-3 to +12 (P42HCA10/11/12) -7 to +16 (P42VCA10/11/12/20/21/22) -7 to +12 (P50XCA10/11/12)	-12 to +25 (P42HCA10/11/12) -25 to +50 (P42VCA10/11/12/20/21/22, P50XCA10/11/12)

* Depending on the input signal, the adjustment range may differ.

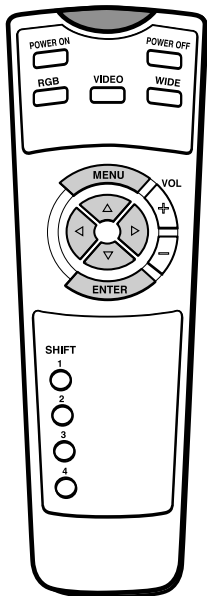
* On-screen information disappears if you do not take any action for about 60 seconds.

ADJUSTING AUDIO (AUDIO MENU)

BASIC OPERATION [EX.: ADJUSTING VOLUME BALANCE (Balance)]

You can make changes to all sound adjustment options in the AUDIO Menu.

The changes you make will be stored for the selected input mode. Therefore, you need to select a desired input mode before making any changes.





1 Press .

The main menu screen will appear.





2 Press  or  to select "AUDIO".

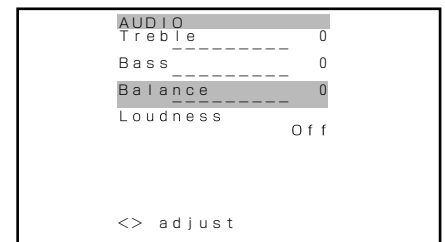
Each time you press  or , one of the available menus appears in the following sequence:

PICTURE ↔ POSITION/SIZE ↔ AUDIO ↔ FEATURES ↔ FACTORY DEFAULT

The AUDIO Menu screen will appear.

"AUDIO" selected in the main menu screen



3 Press  or  to select "Balance".



4 Press .

The "Balance" adjustment screen will appear.

"Balance" selected in the AUDIO Menu screen

5 Press  or  to adjust the balance.

: Higher volume from the right-hand speaker

: Higher volume from the left-hand speaker

6 Press  to store.

Press  when you finish.

* Repeat steps 3 to 6 when you wish to make changes to other options.

* Audio Input menu will not be displayed when "No Audio" is selected. (See P. E-30.)



Adjusting Treble (Treble)

Any value between -6 and +6 can be selected.

: Stronger treble

: Weaker treble

Adjusting Bass (Bass)

Any value between -6 and +6 can be selected.

: Stronger bass

: Weaker bass

Adjusting Volume Balance (Balance)

Any value between -10 and +10 can be selected.

: Higher volume from the right-hand speaker

: Higher volume from the left-hand speaker

Setting Loudness (Loudness)

Corrects the balance between bass and treble for easy listening even with weak volume.

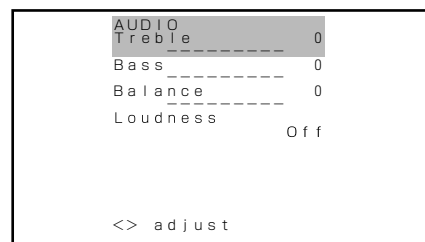
Each time you press or , one of the available choices appears in the following sequence:

On Off

On : Corrects bass and treble.

Off : Loudness dose not function.

Each audio input



"Treble" selected in the AUDIO Menu screen

Each audio input

Each audio input

Each audio input

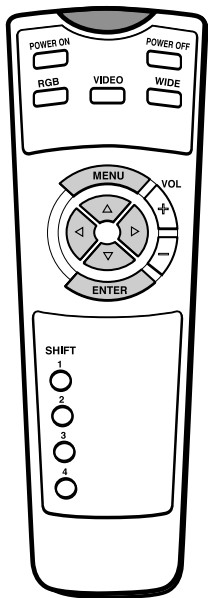
* On-screen information disappears if you do not take any action for about 60 seconds.

* Cannot be set with P42VCA10/P42HCA10/P50XCA10/P42VCA20.

OTHER ADJUSTMENTS (FEATURES MENU)

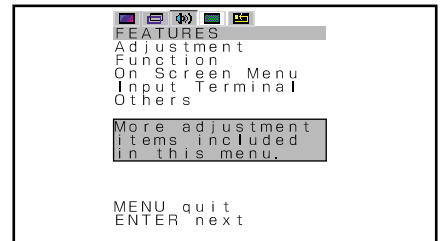
BASIC OPERATION [EX.: SELECTING LANGUAGE (Language)]

You can make the following changes in the FEATURES Menu.





1 Press .

The main menu screen will appear.



2 Press  or  to select "FEATURES".

Each time you press  or , one of the available menus appears in the following sequence:

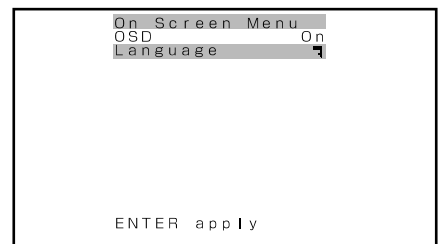
PICTURE ↔ POSITION/SIZE ↔ AUDIO ↔ FEATURES ↔ FACTORY DEFAULT

The FEATURES Menu screen will appear.

"FEATURES" selected in the main menu screen

3 Press  or  to select "On Screen Menu".



- Select a desired option for adjustment/setup from Adjustment, Function, On Screen Menu, Input Terminal and Others.

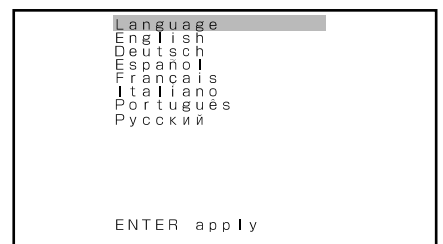


On Screen Menu screen

4 Press .

- On Screen Menu appears.



5 Press  or  to select "Language".



"Language" selection screen

6 Press .

The "Language" selection screen will appear.

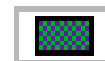
7 Press  or  to select the language.

8 Press .

The menu is displayed in the selected language.

Press  when you finish.

* Repeat steps 3 to 8 when you wish to make changes to other options.



• **FEATURES setup screen has the following 4 options.**

- Adjustment : Can make a fine adjustment of pictures such as Dot Clock, Clamp Position.
- On Screen Menu : Can make a display setting such as OSD, Language. (See P. E-28.)
- Input Terminal : Can make an input terminal setting such as Video Input. (See P. E-28–E-29.)
- Others : Can make other settings. (See P. E-30–E-33.)

ADJUSTMENT

• **Adjusting Dot Clock (Dot Clock)**

for RGB

You may find that pictures blur, depending on the clock frequency of your PC's processor.

If you experience blurring, you can obtain a clearer picture by adjusting the "Dot Clock".

Use or to select a value between -60 and +60.

Press to store.

• **Adjusting Clock Phase (Clock Phase)**

for RGB

You may find that pictures blur, depending on the clock phase of your PC's processor. If you experience blurring, you can obtain a clearer picture by adjusting the "Clock Phase".

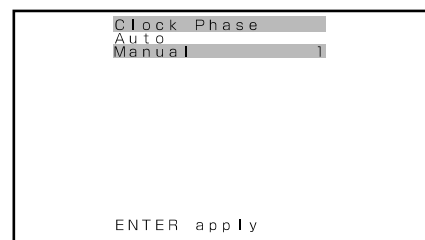
Use or to select "Auto" or "Manual".

Auto: Makes automatic adjustment.

Manual: Makes manual adjustment.

Use or to specify a value between 1 and 32.

Press to store.



When selecting Manual by Clock Phase

• **Adjusting Clamp Position (Clamp Position)**

for RGB

Adjusts clamp pulse in accordance with the input signal received from connected equipment.

Use or to specify a value between -8 and 8.

Press to store.

• **Selecting the Optimum Dynamic Range of Images (Auto Calibration)**

for RGB

Receives a white screen signal and adjusts the dynamic range of images to the optimum.

(1) Select Auto Calibration and press .

Auto Calibration screen appears.

(2) Select Execute and press .

Press or to select Yes or No.

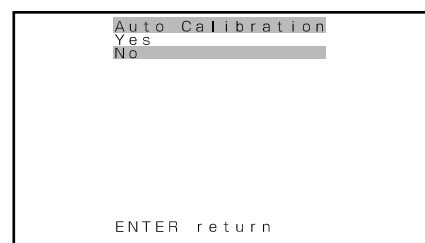
Yes: Stores the data of Auto Calibration.

No: Disables the execution result of Auto Calibration.

(3) Press to execute.



"Auto Calibration" setting screen



"Yes/No" screen to select


* On-screen information disappears if you do not take any action for about 60 seconds.


OTHER ADJUSTMENTS (FEATURES MENU)(Continued)

ON SCREEN MENU

• Setting Display Information (OSD)

You can use this option to select whether to display information other than menus. (Error messages are displayed regardless of what choice you make for this option.)

Each time you press , one of the available choices appears in the following sequence:

On  Off


On : Displays all information.

Off : Displays only menus and error messages.



Press  to store.

• Selecting Language (Language)

You can use this option to select the language displayed on the screen.

(1) Select "Language" and press .

The "Language" selection screen will appear.

(2) Press  or  to select your desired language.

English

Deutsch (German)

Español (Spanish)

Français (French)

Italiano (Italian)

Português (Portuguese)

Русский (Russian)

(3) Press .

The menu is displayed in the selected language.

* Russian can only be set with the E-model.





"Language" selection screen

INPUT TERMINAL

• Selecting Video Mode (Video Input)

You can use this option to select the desired video mode of pictures it will receive to the Video Input terminal.

Each time you press  or , one of the available modes appears in the following sequence:

Auto  NTSC  PAL  SECAM  PAL60  4.43NTSC 



Auto: Automatically selects NTSC, PAL and SECAM.

Other than Auto: You need to select a system appropriate to the input signal.

Press  to store.

• Selecting Video Mode (S-video Input)

You can use this option to select the desired video mode of pictures it will receive to S-video Input terminal.

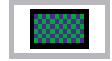
Each time you press  or , one of the available modes appears in the following sequence:

Auto  NTSC  PAL  SECAM  PAL60  4.43NTSC 

Auto: Automatically selects NTSC, PAL and SECAM.

Other than Auto: You need to select a system appropriate to the input signal.

Press  to store.



• Selecting BNC Input (BNC-Input)

You can use this option to select the signal system it will receive to BNC Input terminal.

- (1) Select BNC Input and press .

BNC Input screen appears.

- (2) Select the signal system to receive.

Each time you press or , one of the available choices appears in the following sequence:

→ RGB-Video ↔ RGB-PC ↔ Decoder ←

RGB-Video: For using 0.3V input of sync. signal level with RGB signal input.

RGB-PC: For using PC with RGB signal input.

Decoder: For using decoder with RGB signal input.

- (3) Press or to select Mask.

- (4) Select RGB-Video or Decoder by FUNCTION to set up Mask.

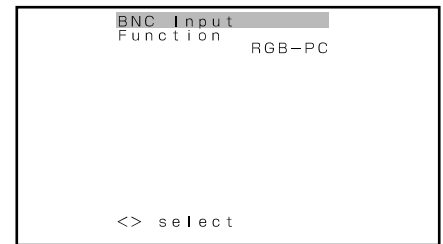
Each time you press or , one of the available choices appears in the following sequence:

→ Off ↔ 5 ↔ 10 ↔ 15 ←

Off: Does not mask.

Number: Masks the fringe (top, bottom, right and left) of the screen by the number of pixels specified.

- (5) Press to store.



"BNC-Input" selection screen



This fringe part is masked.

• Selecting D-SUB Input (D-SUB Input)

You can use this option to select the signal system it will receive to D-SUB Input terminal.

- (1) Select D-SUB Input and press .

D-SUB Input screen appears.

- (2) Select the signal system to receive.

Each time you press or , one of the available choices appears in the following sequence:

RGB-PC ↔ Decoder

RGB-PC: For using RGB for PC

Decoder: For using digital broadcast tuner

- (3) Press or to select Mask.

- (4) Select Decoder by FUNCTION to set up Mask.

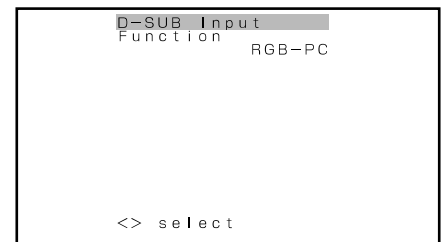
Each time you press or , one of the available choices appears in the following sequence:

→ Off ↔ 5 ↔ 10 ↔ 15 ←

Off: Does not mask.

Number: Masks the fringe (top, bottom, right and left) of the screen by the number of pixels specified.

- (5) Press to store.



"D-SUB Input" selection screen



This fringe part is masked.

OTHER ADJUSTMENTS (FEATURES MENU)(Continued)


OTHERS MENU

• Selecting time before DPMS starts (DPMS)

You can use this option to select the amount of time before the DPMS function starts.

DPMS (which stands for “display power management signaling”) allows the display to maintain an automatic power saving function.

This function causes on-screen information to disappear until the next input operation, if the power is ON and the display has not received any signals for the predetermined period of time. When DPMS is active, the power indicator lamp turns orange.

- (1) Select DPMS and press .

DPMS screen appears.

- (2) Press  or  to select Time.

- (3) Each time you press  or , one of the available choices appears in the following sequence:

→ Off ↔ 1min. ↔ 15min. ↔ 45min. ↔ 60min. ←



Off: Disables DPMS



Number: Approximate time before DPMS starts. (Unit: minutes)

* The power indicator lamp turns orange while the DPMS is ON.

* The power turns ON automatically when the display receives a signal.

- (4) Can specify background color.

Press  or  to select background color.

Each time you press  or , one of the available choices appears in the following sequence:

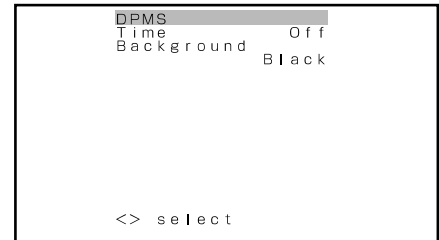
Black ↔ White

Black: Mutes images in Black background.

White: Mutes images in White background.

* Switches approx. 20 seconds after the display stops receiving signals.


- (5) Press  to store.





DPMS selection screen

• Selecting input terminals (Audio Input)



You can use this option to select one of the three available terminals to receive sound from input equipment.

- (1) Select “Audio Input” and press .

The “Audio Input” selection screen will appear.

- (2) Press  or  to select input equipment.

- (3) Select a desired input terminal.

Each time you press  or , one of the available choices appears in the following sequence:

→ No Audio ↔ Audio 1 ↔ Audio 2 ↔ Audio 3 ←

No audio: No sound in the corresponding mode.

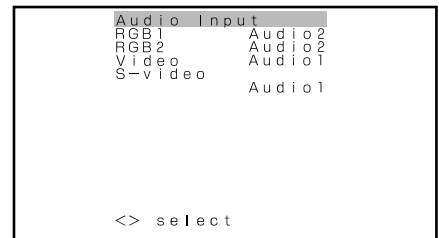
Audio 1-3: Selects Audio 1 through 3 for receiving sound in the corresponding mode.

* Repeat steps (2) and (3) for each piece of input equipment.

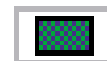
- (4) Press  to store.

* Audio Input menu will not be displayed when "No Audio" is selected.

* Cannot be set with P42VCA10/P42HCA10/P50XCA10/P42VCA20.



“Audio Input” selection screen



• Minimizing phosphor burn-in (Screen Orbiter) for RGB

You can use this option to move the screen position to minimize phosphor-induced “burn-in”.

Follow the steps below.

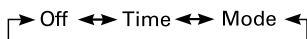
- (1) Select “Screen Orbiter” and press

The “Screen Orbiter” setting screen will appear.

- (2) Press or to select “Mode/Time”.

- (3) Select a desired pattern.

Each time you press or , one of the available choices appears in the following sequence:



Off: Disables Screen Orbiter.

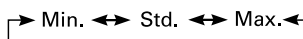
Time: Moves the pattern approximately every one hour.

Mode: Moves the pattern when the power is turned ON or when you switch between modes.

- (4) Press or to select “Moving Area”.

- (5) Press or to select the range for moving the pattern.

Each time you press or , one of the available choices appears in the following sequence:

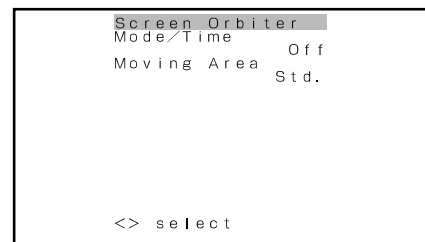


Min.: Pattern moves in small range. (About 5 pixels)

Std.: Pattern moves in moderate range. (About 10 pixels)

Max.: Pattern moves in wide range. (About 15 pixels)

- (6) Press to store.



“Screen Orbiter” setting screen

Using screen protection functions (examples)

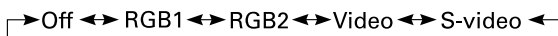
The screen protection functions minimize phosphor burn-in but cannot completely eliminate it.

When using the display occasionally	When using the display continuously
<ul style="list-style-type: none"> • Select a desired amount of time for “DPMS”. Thus, when the display does not receive a signal, it will automatically display white or black over the entire screen. When the predetermined time elapses, the power will turn OFF. 	<p>When switching between RGB and video input modes only occasionally</p> <ul style="list-style-type: none"> (1) Select “Time” for “Mode/Time” with “Screen Orbiter”. (2) Select a desired range for “Moving Area” with “Screen Orbiter”. This causes the screen saver pattern to move in the same range at regular intervals. <p>When switching between RGB and video input modes frequently</p> <ul style="list-style-type: none"> (1) Select “Mode” for “Mode/Time” with “Screen Orbiter”. (2) Select a desired range for “Moving Area” with “Screen Orbiter”. When the mode is switched from Video to RGB, the display position moves.

• Input mode of priority (Input Priority)

You can use this option to switch between modes only when a signal is received through the selected input mode terminal. You cannot switch the input mode.

Each time you press or , one of the available choices appears in the following sequence:



Off: Switches between modes normally.

Other modes: Displays pictures when a signal is received through the selected input mode terminal.



Press to store.

* On-screen information disappears if you do not take any action for about 60 seconds.

OTHER ADJUSTMENTS (FEATURES MENU)(Continued)

• Assigning Numbers to Displays (Monitor No.)

When you use two or more displays, you can use a single remote control to control individual displays by assigning a unique number to each of the displays.

Each time you press  or , one of the available numbers appears in the following sequence:

→ 0 ↔ 1 ↔ 2 ↔ 3 ↔ 4 ←

0: You can normally control displays.

You cannot control displays if you press any of [SHIFT 1] through [SHIFT 4].

1-4: Allows you to control a desired display by pressing the corresponding button (one of [SHIFT 1] through [SHIFT 4]).



When you do not press any of the SHIFT buttons, you can control all displays.

Press  to store.

* You can check the "Monitor No." on the Information screen. (See P. E-33.)

• Setting RGB Input Signal Compulsorily (Direct Setting)

You can use this option to switch the setting for RGB input signal.

Each time you press  or , one of the available choices appears in the following sequence:

For RGB mode:

→ Auto ↔ VGA ↔ WVGA ↔ 480P ↔ XGA ↔ WXGA ↔ SXGA ↔ SXGA+ ←

Auto: The optimum display is obtained automatically for input signals.



Others: The optimum resolution setting is fixed for each signal.

Press  to store.

* In Auto mode, the resolution of VGA, WVGA, 480P, XGA, WXGA, SXGA and SXGA+ may not be automatically distinguished. Switch to the fixed display when the image is not displayed properly.

• Specifying RGB Input Signal (Code Setting)

You can use this option to specify and display the type of RGB input signal by code number.

Each time you press  or , one of the available choices appears in the following sequence:

Auto ↔ Manual

Auto: Automatically displays the input signal to the optimum.

Manual: Selects RGB code number.

Press  to store.



* In Auto mode, the optimum resolution may not be set up automatically depending on the type of signal.

Select the type of signal when the image is not displayed properly.

However, note that when the type of signal is selected directly, the signal of other resolution may not be displayed properly.

• Displaying white over entire screen (White Screen)

You can use this option to display white over the entire screen to minimize phosphor burn-in.

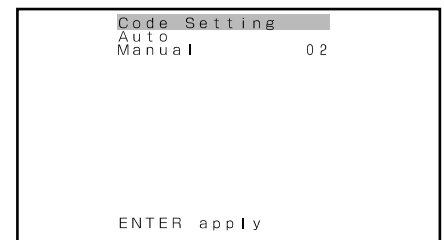
Each time you press  or , one of the available choices appears in the following sequence:

On ↔ Off

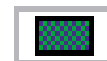
Off: Does not display white.

On: Displays a white screen immediately.

Press  to store.



"Code Setting" setting screen



• Setting Exhibition Mode (Exhibition Mode)

You can use this option to display the enhanced contrast, which is most suitable for the use by unspecified persons.

Each time you press or , one of the available choices appears in the following sequence:

On Off

On: Sets up Exhibition mode.

Off: Sets up normal mode.

Press to store.

* In Exhibition mode, the display returns to the original setting in about 5 minutes even if the adjustment is changed.

* The setup will be cancelled when removing the power plug from the receptacle.

• Horizontal/Vertical installation (Installation)

You can use this option to setup the number of fan rotation and the direction of display text of menu or other screen for horizontal and vertical installation.

Each time you press or , one of the available choices appears in the following sequence:

-90 Deg. Normal +90 Deg.

-90 Deg. : Displays text from left to right when the display is installed with the power indicator lamp at the top.

Normal : Displays text normally.

+90 Deg. : Displays text from left to right when the display is installed with the power indicator lamp at the bottom.

Press to store.

* Be sure to make this setup when changing the direction of installation.

• Displaying System Status (Information)

Displays system operation status.

Select "Information" and press .

The "Information" screen will appear.

Mode: Input mode

Monitor No.: Monitor number

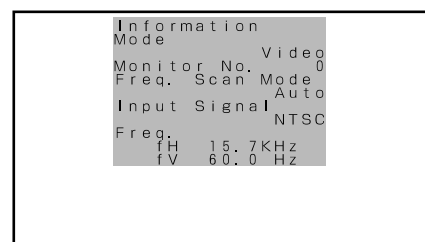
Freq. Scan Mode: Frequency scanning

Input Signal: Video mode

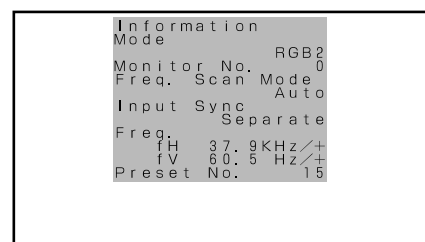
Input Sync.: Signal type

Freq.: Frequency and polarity (fH, fV)

Preset No.: RGB code number



Information screen (Video Input Mode)

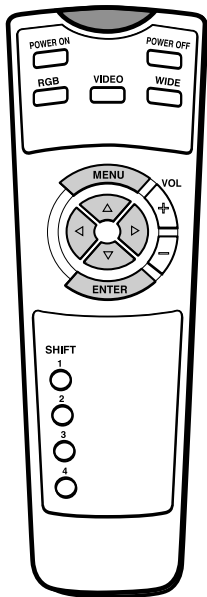


Information screen (RGB2 Input Mode)

* On-screen information disappears if you do not take any action for about 60 seconds.

INITIALIZATION OF USER ADJUSTMENT VALUE (FACTORY DEFAULT)

You can restore the values of the adjustment/setting made in the MENU to factory settings.



* You can also use the switches on the display's control panel to accomplish these steps.

1 Press **MENU**.

The main menu screen will appear.



"FACTORY DEFAULT" selected in the main menu screen

2 Press **◀** or **▶** to select "FACTORY DEFAULT".

Each time you press **◀** or **▶**, one of the available menus appears in the following sequence:

PICTURE ↔ POSITION/SIZE ↔ AUDIO ↔ FEATURES ↔ FACTORY DEFAULT

The FACTORY DEFAULT Menu screen will appear.

3 Press **ENTER**.

- Displays the message of whether to proceed with the initialization.



Displays the message of whether to proceed the initialization

4 Press **▲** or **▼** to select the Yes.

5 Press **ENTER**.

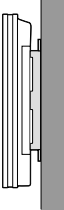
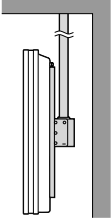
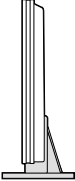
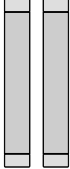

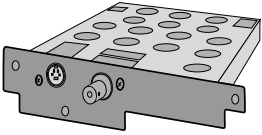
- The message of having completed the initialization will be displayed after initializing.

Press **MENU** when you finish.



Displays the message of having completed the initialization

OPTIONS

Wall-mounting unit	0° to 15° mounting angle	P-WB4200	
Hanging unit	0° to 15° mounting angle	P-CT4200	
Stand		P-TT4200	
Speaker		P-42SP11 (for 42") P-50SP01 (for 50") (1 set of 2 speakers)	
Speaker Stand		P-42ST11 (for 42") P-50ST01 (for 50") (1 set of 2 speakers stands)	
Videoboard		P-TE1020E	

- * When installing an option, make sure that all installation requirements for that option (as given in the relevant instruction manual) are met.
- * The colors of options do not match the display colors perfectly.

Warning

To prevent injury, fire, and electric shock, arrange for options to be initially installed (or installed at a different location) by your dealer.

CAUTION: This display (P42VCA10/P42VCA11/P42VCA12/P42HCA10/P42HCA11/P42HCA12/P50XCA10/P50XCA11/P50XCA12/P42VCA20/P42VCA21/P42VCA22) is for use only with Fujitsu General Limited's option (P-WB4200, P-CT4200, P-TT4200). Using this display with other option can cause instability resulting in possible injury.

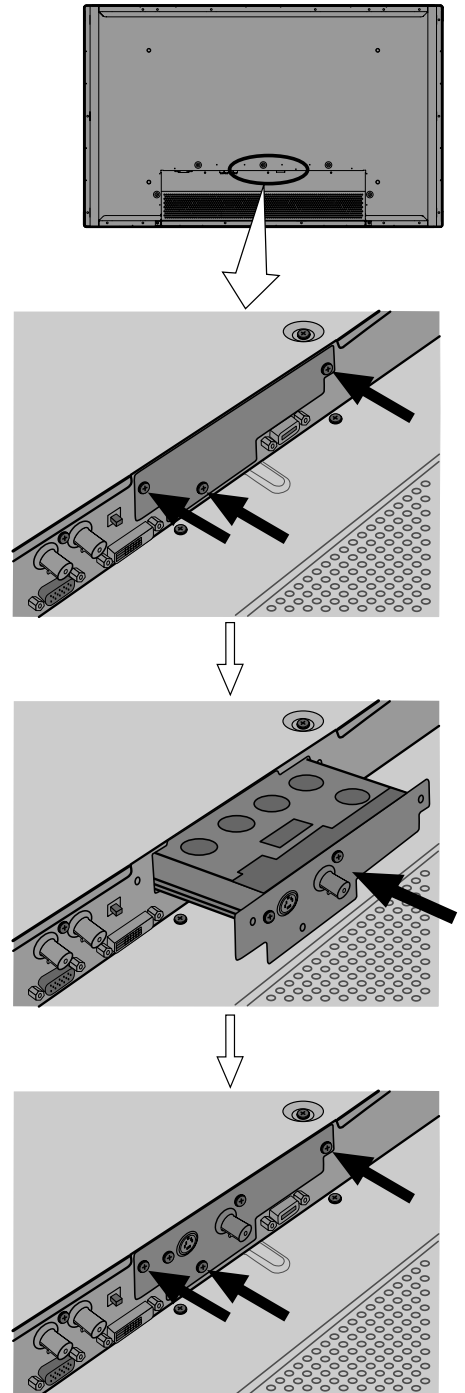
OPTIONS (Continued)

INSTALLATION

1. Turn the power supply switch to OFF.
2. Remove the power plug from outlet.
3. Remove the plate attached to the bottom rear of the main unit from the Video board unit mounting bracket (3 mm screw w/spring X 3).
4. Insert the Video board unit into the main unit slot using the guides on the sides.
5. Completely insert the Video board until the plate touches the main unit box.
6. Mount the plate using the 3 screws with spring removed earlier.
7. Affix the enclosed connector label to the marking position on the rear cover.

Connecting the signal input cable

For details, see "Connecting to External Equipment" in the main unit instructions manual.



CAUTION: Follow the items given below, to prevent accidental injuries and possible electrical shock.

- Turn off the power supply and disconnect the power plug from outlet before installing the Video board unit.
- Do not remove the cabinet when installing the Video board unit.
- Do not remove screws except for the specified user service screw marked "↑".
- Do not use screws other than that specified in this manual for the installation of this Video board unit.

FACTORY SETTINGS

This display can store the latest four types of signals for RGB adjustment value. The fifth input signal will replace the adjustment value of the first input signal.

To do this, select a desired signal and follow the instructions in “Adjusting Screen Position and Size” on P. E-22–E-23 to adjust the parameters. When you finish, the settings will be automatically stored. Thus, when the display receives that signal, pictures will be displayed in accordance with the settings you most recently selected.

Main corresponding signals (RGB mode)

Display (dots x lines)	Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal
640 x 480	31.47	59.94	VGA
640 x 480	37.50	75.00	VGA 75 Hz
640 x 480	43.27	85.01	VGA 85 Hz
720 x 400	31.47	70.09	400 lines
800 x 600	37.88	60.32	SVGA 60 Hz
800 x 600	46.88	75.00	SVGA 75 Hz
800 x 600	53.67	85.06	SVGA 85 Hz
1024 x 768	48.36	60.00	XGA 60 Hz
1024 x 768	60.02	75.03	XGA 75 Hz
1024 x 768	68.68	84.99	XGA 85 Hz
1280 x 1024	63.98	60.02	SXGA 60 Hz
1280 x 1024	79.98	75.03	SXGA 75 Hz
1600 x 1200	75.00	60.00	UXGA 60 Hz
1600 x 1200	106.25	85.00	UXGA 85 Hz
848 x 480	31.02	60.00	
852 x 480	31.72	59.97	
1360 x 768	47.71	60.01	
720 x 485	15.73	59.94	60 fields
720 x 575	15.63	50.00	50 fields

* With some input signals, “Out of range” may appear even when the horizontal and vertical frequencies are within their permissible ranges. Make sure that the vertical frequency of the input signal is 85 Hz or less for SVGA/XGA/UXGA, 75 Hz or less for SXGA.

In the Video/S-video modes, the display has been factory-set as follows for different input signals:

Main corresponding signals (Video, S-video mode)

Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal
15.73	59.94	NTSC
15.63	50.00	PAL
15.63	50.00	SECAM
15.63	59.52	PAL60
15.73	59.94	4.43NTSC

- Depending on the input signal, the display may show pictures of reduced size due to size reduction and interpolation.
- “Out of range” appears if the display receives a signal whose characteristic does not fall within the display’s permissible range.
- You can check input signals through “Information” on the FEATURES Menu screen. (See P. E-33.)
- In order to facilitate the explanations, pictures and diagrams in this manual may differ slightly from the actual items.
- All terms (i.e., company and product names) used in this document are trademarks or registered trademarks.

SPECIFICATION

Model	P42VCA10W/E/A	P42VCA11W/E/A	P42VCA12W/E/A
Screen size	42" wide screen: 92.1 cm (W) x 51.8 cm (H) (105.7 cm diagonal) 36.3 inch (W) x 20.4 inch (H) (41.6 inch diagonal)		
Aspect ratio	16:9 (wide)		
Weight	28.5 kg / 62.8 lbs		
Outer dimensions	103.5 (W) x 64.0 (H) x 8.5 (D) cm 40.7 (W) x 25.2 (H) x 3.3 (D) inch		
Power supply	110–240 VAC 50/60 Hz		
Current rating	3.0–1.3 A	3.1–1.4 A	3.0–1.3 A
Number of pixels	852 (H) x 480 (V)		
Display modes	Video, S-video input: Normal/Wide1/Wide2/Zoom1/Zoom2		
	RGB: Normal/Wide/Zoom		
Colors	16.77 million		
Sound output	—		2.5 W + 2.5 W (EIAJ), 8 Ω
Speaker	—		2-internal
External equipment terminals			
Video input terminals	VIDEO1 INPUT (Video input)	1 BNC terminal	1 Vp-p/75 Ω
	VIDEO2 INPUT (S-video input)	1 S terminal	Y: 1 Vp-p/75 Ω C: 0.286 Vp-p/75 Ω
Applicable systems	NTSC/PAL/SECAM/PAL60/4.43NTSC		
PC input terminal	RGB1 input	mD-sub, 3 rows, 15-pin Picture signal: 0.7 Vp-p/75 Ω Synchronization signal:TTL level	
	RGB2 input	BNC terminal x 5 R: 0.7 Vp-p/75 Ω G: 0.7 Vp-p/75 Ω B: 0.7 Vp-p/75 Ω H: TTL Level or ANALOG (75 Ω) V: TTL Level or ANALOG (75 Ω)	
Sound terminals	—	2 sound input pin jacks (L/R) (3 lines) 500 mVrms/ at least 22 kΩ	
Control terminal	1 RS-232C connector (D-sub 9-pin)		
External speaker output terminal	—	Effective max. output: 10 W + 10 W (EIAJ), 8 Ω	—
Operating conditions	Temperature: 0 to 40 °C / 32 to 104 °F Humidity: 20 to 80 %		
Accessories	1 remote control, 2AA batteries, 1 instruction manual, 1 power cable, 2 big ferrite cores, 2 small ferrite cores (P42VCA11)		

Regulation --- P42VCA10W/E/A, P42VCA11W/E/A, P42VCA12W/E/A

- UL, CSA Safety: UL6500, C-UL
EMC: FCC Part 15 Class A, ICES-003 Class A
- CE Safety: EN60065
EMC: EN55022 1998, Class A
EN61000-3-2 1995
EN61000-3-3 1995
EN55024 1998
EN61000-4-2 1995
EN61000-4-3 1996
EN61000-4-4 1995
EN61000-4-5 1995
EN61000-4-6 1996
EN61000-4-8 1993
EN61000-4-11 1994
- AS Safety: IEC60065
EMC: AS/NZS 3548

Model	P42HCA10W/E/A	P42HCA11W/E/A	P42HCA12W/E/A
Screen size	42" wide screen: 92.2 cm (W) x 52.2 cm (H) (106.0 cm diagonal) 36.3 inch (W) x 20.6 inch (H) (41.7 inch diagonal)		
Aspect ratio	16:9 (wide)		
Weight	28.5 kg / 62.8 lbs		
Outer dimensions	103.5 (W) x 64.0 (H) x 8.5 (D) cm 40.7 (W) x 25.2 (H) x 3.3 (D) inch		
Power supply	110–240 VAC 50/60 Hz		
Current rating	4.3–1.8 A	4.4–1.9 A	4.3–1.8 A
Number of pixels	1024 (H) x 1024 (V)		
Display modes	Video, S-video input: Normal/Wide1/Wide2/Zoom1/Zoom2		
	RGB: Normal/Wide/Zoom		
Colors	16.77 million		
Sound output	—		2.5 W + 2.5 W (EIAJ), 8 Ω
Speaker	—		2-internal
External equipment terminals			
Video input terminals	VIDEO1 INPUT (Video input)	1 BNC terminal	1 V _{p-p} /75 Ω
	VIDEO2 INPUT (S-video input)	1 S terminal	Y: 1 V _{p-p} /75 Ω C: 0.286 V _{p-p} /75 Ω
Applicable systems	NTSC/PAL/SECAM/PAL60/4.43NTSC		
PC input terminal	RGB1 input	mD-sub, 3 rows, 15-pin Picture signal: 0.7 V _{p-p} /75 Ω Synchronization signal:TTL level	
	RGB2 input	BNC terminal x 5 R: 0.7 V _{p-p} /75 Ω G: 0.7 V _{p-p} /75 Ω B: 0.7 V _{p-p} /75 Ω H: TTL Level or ANALOG (75 Ω) V: TTL Level or ANALOG (75 Ω)	
Sound terminals	—	2 sound input pin jacks (L/R) (3 lines) 500 mV _{rms} / at least 22 kΩ	
Control terminal	1 RS-232C connector (D-sub 9-pin)		
External speaker output terminal	—	Effective max. output: 10 W + 10 W (EIAJ), 8 Ω	—
Operating conditions	Temperature: 0 to 40 °C / 32 to 104 °F Humidity: 20 to 80 %		
Accessories	1 remote control, 2AA batteries, 1 instruction manual, 1 power cable, 2 big ferrite cores, 2 small ferrite cores (P42HCA11)		

Regulation --- P42HCA10W/E/A, P42HCA11W/E/A, P42HCA12W/E/A

- UL, CSA Safety: UL6500, C-UL
EMC: FCC Part 15 Class A, ICES-003 Class A
- CE Safety: EN60065
EMC: EN55022 1998, Class A
EN61000-3-2 1995
EN61000-3-3 1995
EN55024 1998
EN61000-4-2 1995
EN61000-4-3 1996
EN61000-4-4 1995
EN61000-4-5 1995
EN61000-4-6 1996
EN61000-4-8 1993
EN61000-4-11 1994
- AS Safety: IEC60065
EMC: AS/NZS 3548

SPECIFICATION (Continued)

Model	P50XCA10W/E/A/U	P50XCA11W/E/A/U	P50XCA12W/E/A/U
Screen size	50" wide screen: 110.6 cm (W) x 62.2 cm (H) (126.9 cm diagonal) 43.5 inch (W) x 24.5 inch (H) (50.0 inch diagonal)		
Aspect ratio	16:9 (wide)		
Weight	45.0 kg / 99.2 lbs		
Outer dimensions	121.2 (W) x 72.6 (H) x 9.8 (D) cm 47.7 (W) x 28.6 (H) x 3.9 (D) inch		
Power supply	220–240 VAC 50/60 Hz (W/E/A) 120 VAC 50/60 Hz (U)		
Current rating	2.6–1.9 A (W/E/A) 4.8 A (U)	2.7–2.0 A (W/E/A) 4.9 A (U)	2.6–1.9 A (W/E/A) 4.8 A (U)
Number of pixels	1366 (H) x 768 (V)		
Display modes	Video, S-video input: Normal/Wide1/Wide2/Zoom1/Zoom2		
	RGB: Normal/Wide/Zoom		
Colors	16.77 million		
Sound output	—		2.5 W + 2.5 W (EIAJ), 8 Ω
Speaker	—		2-internal
External equipment terminals			
Video input terminals	VIDEO1 INPUT (Video input)		1 BNC terminal 1 Vp-p/75 Ω
	VIDEO2 INPUT (S-video input)		1 S terminal Y: 1 Vp-p/75 Ω C: 0.286 Vp-p/75 Ω
Applicable systems	NTSC/PAL/SECAM/PAL60/4.43NTSC		
PC input terminal	RGB1 input	mD-sub, 3 rows, 15-pin Picture signal: 0.7 Vp-p/75 Ω Synchronization signal:TTL level	
	RGB2 input	BNC terminal x 5 R: 0.7 Vp-p/75 Ω G: 0.7 Vp-p/75 Ω B: 0.7 Vp-p/75 Ω H: TTL Level or ANALOG (75 Ω) V: TTL Level or ANALOG (75 Ω)	
Sound terminals	—		2 sound input pin jacks (L/R) (3 lines) 500 mVrms/at least 22 kΩ
Control terminal	1 RS-232C connector (D-sub 9-pin)		
External speaker output terminal	—		Effective max. output: 10 W + 10 W (EIAJ), 8 Ω
Operating conditions	Temperature: 0 to 40 °C / 32 to 104 °F Humidity: 20 to 80 %		
Accessories	1 remote control, 2AA batteries, 1 instruction manual, 1 power cable, 2 big ferrite cores, 2 small ferrite cores (P50XCA11)		

Regulation --- P50XCA10W/E/A/U, P50XCA11W/E/A/U, P50XCA12W/E/A/U

- UL, CSA Safety: UL6500, C-UL
EMC: FCC Part 15 Class A, ICES-003 Class A
- CE Safety: EN60065
EMC: EN55022 1998, Class A
EN61000-3-2 1995
EN61000-3-3 1995
EN55024 1998
EN61000-4-2 1995
EN61000-4-3 1996
EN61000-4-4 1995
EN61000-4-5 1995
EN61000-4-6 1996
EN61000-4-8 1993
EN61000-4-11 1994
- AS Safety: IEC60065
EMC: AS/NZS 3548

Model	P42VCA20W/E/A/U	P42VCA21W/E/A/U	P42VCA22W/E/A/U
Screen size	42" wide screen: 92.0 cm (W) x 51.8 cm (H) (106.0 cm diagonal) 36.3 inch (W) x 20.4 inch (H) (41.6 inch diagonal)		
Aspect ratio	16:9 (wide)		
Weight	29.5 kg / 65.0 lbs		
Outer dimensions	103.5 (W) x 64.0 (H) x 8.5 (D) cm 40.7 (W) x 25.2 (H) x 3.3 (D) inch		
Power supply	220–240 VAC 50/60 Hz (W/E/A), 120 VAC 50/60 Hz (U)		
Current rating	1.7–1.4 A (W/E/A) 4.2 A (U)	1.8–1.5 A (W/E/A) 4.3 A (U)	1.7–1.4 A (W/E/A) 4.2 A (U)
Number of pixels	852 (H) x 480 (V)		
Display modes	Video, S-video input: Normal/Wide1/Wide2/Zoom1/Zoom2		
	RGB: Normal/Wide/Zoom		
Colors	16.77 million		
Sound output	—		2.5 W + 2.5 W (EIAJ), 8 Ω
Speaker	—		2-internal
External equipment terminals			
Video input terminals	VIDEO1 INPUT (Video input)	1 BNC terminal	1 Vp-p/75 Ω
	VIDEO2 INPUT (S-video input)	1 S terminal	Y: 1 Vp-p/75 Ω C: 0.286 Vp-p/75 Ω
Applicable systems	NTSC/PAL/SECAM/PAL60/4.43NTSC		
PC input terminal	RGB1 input	mD-sub, 3 rows, 15-pin Picture signal: 0.7 Vp-p/75 Ω Synchronization signal: TTL level	
	RGB2 input	BNC terminal x 5 R: 0.7 Vp-p/75 Ω G: 0.7 Vp-p/75 Ω B: 0.7 Vp-p/75 Ω H: TTL Level or ANALOG (75 Ω) V: TTL Level or ANALOG (75 Ω)	
Sound terminals	—	2 sound input pin jacks (L/R) (3 lines) 500 mVrms/ at least 22 kΩ	
Control terminal	1 RS-232C connector (D-sub 9-pin)		
External speaker output terminal	—	Effective max. output: 10 W + 10 W (EIAJ), 8 Ω	—
Operating conditions	Temperature: 0 to 40 °C / 32 to 104 °F Humidity: 20 to 80 %		
Accessories	1 remote control, 2AA batteries, 1 instruction manual, 1 power cable, 2 big ferrite cores, 2 small ferrite cores (P42VCA21)		

Regulation --- P42VCA20W/E/A/U, P42VCA21W/E/A/U, P42VCA22W/E/A/U

- UL, CSA Safety: UL6500, C-UL
EMC: FCC Part 15 Class A, ICES-003 Class A
- CE Safety: EN60065
EMC: EN55022 1998, Class A
EN61000-3-2 1995
EN61000-3-3 1995
EN55024 1998
EN61000-4-2 1995
EN61000-4-3 1996
EN61000-4-4 1995
EN61000-4-5 1995
EN61000-4-6 1996
EN61000-4-8 1993
EN61000-4-11 1994
- AS Safety: IEC60065
EMC: AS/NZS 3548

- Specifications and external appearance may be change for the sake of improvement.
- **Plasmavision** is a worldwide trademark of Fujitsu General Limited and is a registered trademark in Japan, the U.S.A. and other countries or areas.

CLEANING AND MAINTENANCE

Precautions

Be sure to remove the power plug from the receptacle before cleaning the display.

Be sure not to clean the display using a cloth dampened with volatile solvents, such as benzene or thinner. Such solvents can harm the display's cabinet, the filter at the screen front, and the remote control. They can also cause paint to come off these sections.

Cleaning the Screen

Clean the screen gently with a soft cloth.

The screen surface is fragile. Never attempt to clean it with a hard material, press on it forcefully, or tap it.

Cleaning the Cabinet and Remote Control

Use a soft cloth for cleaning.

If the cabinet or remote control is heavily stained, soak a soft cloth in a mixture of water and detergent and squeeze it dry before wiping off the stains. Use a soft, dry cloth for final cleaning.

Cleaning the ventilation grille

Remove dust from the ventilation grille in the rear of the main unit periodically with a vacuum cleaner as the accumulated dust can increase the internal temperature of the main unit causing machine failure or fire hazard.

HANDY TIPS

In the event of problems with the display, check the following explanations before contacting your dealer for servicing.

Problem	Action
• Power does not turn ON.	• Check whether the power plug is securely inserted into the receptacle.
• No pictures are displayed.	• Check cables for disconnection. • Check whether the power for all input equipment is ON. • Check for connection to wrong terminals or for wrong input mode. • Check whether the input mode display is colored pink. Special setup may have been made. Return to original setup or initialize the User adjustment value.
• Remote control does not function properly.	• Check for incorrect battery orientation. • Check for dead batteries. • Check for distance from the display. • Check whether you are pointing the remote control transmitter properly at the display's receiver. • Check for any obstacle between the remote control and the display.
• The display makes a snapping sound.	• This sound is produced when the cabinet expands or contracts due to variations in temperature. This sound does not indicate that the display has a problem.
• The display makes a buzzing sound.	• The display has fans to maintain the temperature of internal components at a constant level. This sound is produced by the fan as it rotates.
• There are spots on the screen.	• Check whether your AV equipment is affected by interference from automobiles, trains, high-voltage transmission lines, neon signs or other potential sources of interference.
• Degraded colors/tints	• Check whether all picture adjustments have been properly made. (See "Adjusting Pictures" on P. E-20–E-21.)
• Improper screen position/size	• Check whether screen position and size have been properly adjusted. (See "Adjusting Screen Position and Size" on P. E-22–E-23.)
• No sound from external speakers	• Check cables for disconnection.
• No sound	• Check whether you have selected "No Audio" for the "Audio Input" setting. (See "Features" on P. E-30.)
• If "Invalid operation" appears.	• Check whether you have selected "Input Priority". (See "Features" on P. E-31.)
• If "Out of range" appears, the display is receiving a signal whose picture or signal cannot be reproduced by the display. • The screen turns to black and white.	• Input proper signals. Make sure that the vertical frequency of the input signal is 85 Hz or less for SVGA / XGA / UXGA, 75 Hz or less for SXGA.
• If "Error message Condition 1" appears, the fan is defective.	• Remove the power plug from the receptacle, and contact your dealer for repairs.
• If "Error message Condition 2" appears, the display's internal components are extremely hot.	• Remove the power plug from the receptacle. (You can turn the power back ON again when the components have cooled sufficiently.) If the message appears again when you turn the power back on, remove the power plug from the receptacle, and contact your dealer for a repairs.
• If "Change refresh rate to 60Hz" appears,	• The picture may get blurred with vertical frequency of other than 48.3-51.8 or 58.4-61.4 (Hz). Change the setting of your PC, etc.
• If the power indicator lamp flashes red.	• Remove the power plug from the receptacle, and inform your dealer about how the lamp flashed. As explained below, the power indicator lamp flashes differently depending on the type of problem: – Flashes repeatedly: Improper supply voltage level – Flashes once: Malfunction by the fan – Flashes twice: Excessive temperature – Flashes three times or more: Other problems